REMARKS

This is a full and timely response to the non-final Official Action mailed June 6, 2005. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

By the foregoing amendment, the specification and claims 1-9, 11-14, and 17-20 have been amended. Additionally, new claims 21-24 have been added. No claims are cancelled by the foregoing amendment. Thus, claims 1-24 are currently pending for the Examiner's consideration.

Claim Rejections – 35 U.S.C. § 112:

In the outstanding Office Action, claims 1-13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 11 was rejected under 35 U.S.C. § 112, second paragraph, as lacking antecedent basis for the recitation of "the paddle electrode connector." Accordingly, as suggested by the examiner, claim 11 has been amended herein to depend from claim 10, and is now thought to be in full compliance with § 112.

Claims 1 and 6 were rejected under 35 U.S.C. § 112, second paragraph, because the word "its" was considered to be too vague. Accordingly, claims 1 and 6 have been amended to further clarify the claim language. Claims 1 and 6 are now thought to be in full compliance with § 112.

Claims 1 and 6 were also rejected under 35 U.S.C. § 112, second paragraph, for inferentially reciting the term "a reference platform." Accordingly, claims 1 and 6 have been amended to more positively recite the reference platform. Likewise, claims 2 and 7 were

rejected under 35 U.S.C. § 112, second paragraph, for inferentially reciting the term "a stereotactic frame." Accordingly, claims 2 and 7 have been amended to more positively recite the stereotactic frame.

These amendments do not, and are not intended to, have any effect on the scope of claims 1-13. Following entry of this amendment, claims 1-13 should be in compliance with § 112, and notice to that effect is respectfully requested.

Claim Rejections – 35 U.S.C. § 102:

Claims 1-4 and 14-16 were rejected as anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,527,782 to Hogg et al. ("Hogg"). For at least the following reasons, this rejection is respectfully traversed.

Claim 1 recites:

> A deep brain stimulation system comprising:
> a cannula having a lumen and a slit, the slit extending through a portion of a length of the cannula;
> an elongated medical device dimensioned to be insertable within the cannula lumen;
> a reference platform for supporting the medical device; and
> a lock for securing a portion of the elongated medical device through the cannula slit to the reference platform.

(emphasis added).

Claim 14 recites similar subject matter.

In contrast, Hogg fails to teach or suggest the claimed cannula with a slit extending through a portion of the length of the cannula and the claimed lock for securing a portion of an elongated medical device *through the cannula slit* to the reference platform. Rather, Hogg discloses a guide for controlling the orientation of a medical device that is inserted into the body. The guide includes a cannula with a flexible sheath and a guide member disposed

within its lumen. (Hogg, col. 9, lines 31-33 and 42-44). The flexible sheath has a lumen through which a medical device may be advanced into the guide member. (Hogg, col. 9, lines 42-47). The guide member includes a spherical body with a passage extending therethrough. (Hogg, col. 9, lines 33-34 and 41-42). The orientation of the guide member is adjusted to control the direction in which the medical device exits the cannula and extends into the patient's body. (Hogg, col. 9, lines 48-51).

The claimed cannula slit cannot be read on the flexible sheath taught in Hogg, as suggested in the outstanding Office Action. The flexible sheath taught in Hogg does not extend through a portion of the length of a cannula. Rather, the flexible sheath is disposed entirely within the lumen of a cannula. Consequently, Hogg does not teach or suggest the cannula having a slit through a portion of the length of the cannula as claimed.

Furthermore, Hogg fails to teach or suggest a lock for securing a portion of the medical device through the cannula slit to the reference platform. Rather, the Hogg device merely locks the orientation of the guide member in a selected position. (Hogg, col. 9, lines 58-60). Once the Hogg guide member is locked into a desired orientation, the medical device may still be advanced through the guide member and out the distal end of the cannula. (Hogg, col. 4, lines 47-55). Consequently, the medical device is not "secured" to a reference platform as claimed.

Moreover, the Hogg device does not lock a medical device to a reference platform "through" a slit as claimed. Rather, the lock mechanism taught in Hogg is a sleeve with beveled distal ends that can be *advanced distally within the lumen* of the cannula to engage and lock the guide member in a given orientation. (Hogg, col. 4, 29-32). Hence, the lock mechanism taught in Hogg does not secure the medical device *through a cannula slit* to a reference platform as claimed.

Thus, Hogg fails to teach or suggest a deep brain stimulation system that includes a cannula having a slit that extends through a portion of the length of the cannula and a lock for securing a portion of a medical device through the cannula slit to a reference platform. A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). *See* M.P.E.P. § 2131. Because Hogg fails to teach or suggest all the features of claims 1 and 14, the rejection of these claims and their respective dependent claims based on Hogg should be reconsidered and withdrawn.

Claim Rejections – 35 U.S.C. § 103:

Claims 5-9 and 12 were rejected as unpatentable under 35 U.S.C. § 103(a) in view of the combined teachings of Hogg and U.S. Patent No. 6,301,492 to Zoneshayn ("Zoneshayn"). For at least the following reasons, this rejection is respectfully traversed.

Independent claim 6 recites:

> A deep brain stimulation system comprising:
> a cannula having a lumen therein for passage of a medical device into a patient and a slit, the slit extending through a portion of a length of the cannula;
> a lead dimensioned to be insertable within the cannula lumen;
> a reference platform for supporting the medical device; and
> a lock for securing a portion of the medical device through the cannula slit to the reference platform.

(emphasis added).

For at least the same reasons given above, the combination of Hogg and Zoneshayn does not teach or suggest a deep brain stimulation system that includes a cannula having a slit extending through a portion of the length of the cannula and a lock for securing a portion of a medical device through the cannula slit to a reference platform. Zoneshayn discloses a

microelectrode recording lead mounted within a deep brain stimulation lead. (Zoneshayn, col. 2, lines 53-55). However, claim 6 as amended does not recite a microelectrode. Moreover, neither Hogg nor Zoneshayn disclose a cannula having a *slit extending through a portion of the length of the cannula* as claimed or a lock that is used to secure a portion of a medical device *through the cannula slit* to a reference platform as claimed.

Consequently, the combination of Hogg and Zoneshayn fails to teach or suggest the system of claim 6. "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claim 6 and its dependent claims, based on the combination of Hogg and Zoneshayn, should be reconsidered and withdrawn.

Claims 10-11 were rejected as unpatentable under 35 U.S.C. § 103(a) in view of the combined teachings of Hogg and U.S. Patent Publication No. 2002/0143376 to Chinn et al. ("Chinn"). Claims 17-20 were rejected as unpatentable under 35 U.S.C. § 103(a) in view of the combined teachings of Hogg and U.S. Patent No. 5,713,858 to Heruth et al. ("Heruth"). These rejections are respectfully traversed for at least the same reasons given above with respect to the independent claims from which they depend.

Conclusion:

Newly added claims 21-24 are thought to be patentable over the prior art of record for at least the same reasons given above with respect to claims 1 and 6. Therefore, examination and allowance of the newly added claims are respectfully requested.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper that have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

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